

### SciVal 연구성과분석 및 동향분석 중심

2025년4월 엘스비어코리아



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### 4. <u>연구동향 분석</u>

### 5. <u>Appendix</u>







# Scopus & SciVal 소개



### Scopus 국제 연구 문헌 기반의 서지.초록.인용 데이터베이스



# entities (분석단위)

### 분석하고자 하는 단위를 정의하고 선택하는 것이 중요 SciVal에서는 아래의 7가지 종류의 분석단위 제공

≡	Institutions and Groups Q					
鼠	★ Favorites					
$\sim$	Arizona State University					
	m Carnegie Mellon University					
1	Delft University of Technology					
	盦 Erasmus University Rotterdam					
10	益 European Central Bank					
$\odot$	窳 Nanyang Technological University					
	â National Chung Hsing University					
	🏛 National Taiwan University					
∃	Ⅲ National Taiwan University of Science and Technology					
<u>s</u>	俞 Oregon State University					
	夼 Tsinghua University					

愈	Institutions and Groups	기관 - 대학, 정부출연 연구소 등(한글 검색 지원)
$^{\circ}$	Researchers and Groups	연구자/연구자 그룹
1	Publication Sets	이용자가 정의한 논문의 집합
7	Countries and Groups	국가, 그룹
$\odot$	Topics and Topic Clusters	토픽, 토픽 클러스터
	Research Area	이용자가 정의한 연구 분야
Ξ	Scopus Sources	Scopus 저널

### Overview – 연구현황 파악 및 전략 개발

SciVal 10		Explore Compare  Reporting	z My SciVal Sco	copus 7 (n) fm (PD)
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Entity list Q Search entit	+ Define entity 🙍 Athena University			New navigation ① About
Athena University ★				Report from template
Institution   Netherlands   More de	tails on this Institution			
2013 to 2022 🗸 All subject	areas 🗸 ASJC			Data sources
Summary	Summary		+ Ac	Add Summary to Reporting Export 🗸
Bibliometrics	Summary metrics			+ Add to Reporting
Publication metrics			1	여그성학 피아 미 저랴 개바
Citation metrics	56,305 🔺	19,095 🔺	1.58	연구연황 파악 곳 선탁 개발
Views metrics	Scholarly Output ()	Authors	Field-Weighted	
Journal quartiles	58.0% All Open Access	🛃 Download full list of authors	Yearly breakdow	
	View list of publications			• 부선대산이 노무 축파 혀화 및 선규 화이
Contribution				
Authors	1 207 0/7	22.0	140	
Scopus Sources	1,287,067	22.9	149	
	Citation Count (j)	Citations per Publication (j)	h5-index 🛈	• 문식대성의 구요 연구자 및 논문 물편 위물시설
Research Fields				
Topics	Publication share by Subject Area			티 너희 보이 좋지 않고 비 이 비 이 너 이 그 거의 티내
Research Areas	Tublication share by Subject Area			• 문작대장의 핵심 연구 문야 및 문야 별 연구 장과 담색
Subject Areas	Donut Chart 🗸			
SDGs		the second of the second se		
	Segment size represents relative publication share per Subje	ect Area. Note that a publication can be mapped to multiple S	Subject Areas. Learn	• 분석대상의 연구 협력 내용 분석 및 협력개발
Rankings				
Ranking positions		Other Computer Science	æ (23.7%)	
QS World University	Social Scie	ences (11.4%)		• 대학 · OS WUR THE WUR THE Impact Banking 순위가 있는 경우 순위 !
Rankings	Medicir	ne (5.3%) Mathen	matics (11.4%)	
THE World University	Biochemistry, Genetics and Molecular Bi	(5.5%)		
Rankings	Earth and Planetary Sciences (11	1.3%) Phy	ysics and Astronomy	
THE Impact Rankings			emister (7.7%)	
	Environmental Science (1	(1.3%)	emistry (7.7%)	
Collaboration	Energ	gy (8.6%) Chen	mical Engineering (7.3%	7%)
Collaboration metrics		Materials	Science (15.0%)	💬 Feedback 🖉

### Benchmark (Compare) – 연구성과 평가 및 비교분석



## Collaboration – 연구협력 진단 및 협력 개발



### Trend – 관심 연구 분야의 동향 탐색

SciVal 10	+ Define entity 🔗 Athena University	Explore Compar	re 🗸 Reporting My SciVal	Scopus > () î ()				
Electric Power Transmiss	sion Networks; Wind Power; Electric Power Distrib	oution 🖈		Report from template				
Topic Cluster TC.28   i Will not be avai	lable after the launch of the next generation Topics Learn more   🕞 Save as Publics	tion Set						
2013 to 2022				Data sources				
Summary	Summan (avail)							
At Home Institution	Summary (overall)		+	Add Summary to Reporting Export V				
Ribüometrica	Summary metrics			+ Add to Reporting				
Publication metrics	185,267	1.22	33,777					
Citation metrics	Scholarly Output ()	Field-Weighted Citation Impact	International Collaboration ()					
Views metrics		and the second						
Journal quartiles	26.9% All Open Access	Yearly breakdown						
Contribution	View list of publications							
Authors Authors								
Institutions	2,885,130	15.6	99.465 ▲					
Countries and Regions	Citation Count ()	Citations per Publication ()	Topic Prominence					
Scopus Sources			percentile ()					
Research Fields			Calculation breakdown					
Topics								
At Home Institution	Publication share by Subject Area			+ Add to Reporting				
Subject Areas	Denut Chart							
Top contributors								
	Segment size represents relative publication share per Subject Area. Note that a po	ublication can be mapped to multiple Subject Areas. Learn more >						
Collaboration								
Collaboration metrics		Other Computer Science (34.6%)						
	Decision Sciences	(5.0%)						
Impact	- Multiversite (70.196)							
Policy impact Output cited by Policy	Muthematics (20.3%)							
Citing Palicy Documents	Energy (55.8%) Physics and Astronomy (5.6%)							
Patent Impact	Materials Science (4.5%)							
Output cited by Patents								
Citing Patents								
Patent metrics		Engineering (68.5%)						
Media Impact	> Analyze in more detail							
Output mentioned by Media Mantioning Media Asticles								
internating mean of trues	Keyphrase analysis O			+ Add to Reporting				
Funding								
Funding summary	Top 30 keyphrases by relevance, based on 185,267 publications							
Funding Bodies								
Funded Institutions	Bharra	Electric Utilities Energy Storage	market in a					
Co-awardee matrix	Phase Loads (fil	Charging Power System	Stability					
Funded Topics	Voltag Solar Ener	gy Conversion Microgrid Electric Least	L EL					
Grant Cangories	Load Fore w Receve Distri Garding Dist	casting ond Minister to grid lefter to day ind turbles of Small Grid Energy Sy the begins of Small Grid Energy Sy the begins of Small Grid Energy Sy the Small Small Grid Energy Sy wind Farm Electric Vehicle Small Swar Farm Electric Vehicle Small Power How Frequency Power Market Wind Power "ibution Networ Storage Syste	Stems ver Flow Resources					
	Den	And Response Reactive Power Restrict Power System	over Plant M					

### 관심 연구 분야의 글로벌 동향 탐색

- Topic, Research Area , Publication Set entity 로 동향 탐색
- 이용자가 원하는 연구 분야를 직접 설정
- 관심 분야의 전 세계 논문 출판 및 성과 현황 탐색
- 관심 분야를 리드하는 핵심 국가, 연구기관 및 연구자 탐색
- 관심 분야의 핵심 연구 키워드의 분석

### **SciVal Metrics**

• 평가 메트릭스: 연구성과를 분석, 평가 하는데 이용되는 30개 이상의 평가 지표를 크게 4가지로 구분하여 활용

		Benchmarking Metrics
연구 생산성	Scholarly Output	Scopus 상에 등재된 기관의 논문 수 (논문 수)
	Citation Count	해당 기관의 이름으로 발표된 논문이 피인용 된 전체 건수
	Citations per publication	논문 한 편당의 피인용 수
	h-index (& h5-index)	연구자의 연구영향력 측정하기 위한 지수로 생산성과 효과를 함께 측정, 발표한 논문 건수와 피 인 용 횟수를 모두 고려한 지수
연구 영향력	Field Weighted Citation Impact (FWCI)	상대적인 피 인용 지수. 해당 연구 분야, 논문 타입, 발표 연도에 따른 전세계 평균 대비 피 인용 비율. 전세계 평균=1, FWCI가 1.20인 경우 전세계 평균대비 20% 더 인용되었다고 해석
	Outputs in Top Citation Percentiles	인용 건수 기준 전세계 상위 🗙 에 해당되는 논문 편수의 비율
	Publications in Top Journal Percentiles	저널의 영향력 지수기준 상위 X% 저널에 발표된 논문 수 및 해당 비율 CiteScore: 저널의 영향력 지수 SJR: 저널의 명성에 따른 영향력 지수 (전세계 영향력 지수 평균을 1로 정규화) SNIP: 저널의 주제에 따른 영향력 지수 (특정 주제의 영향력 지수 평균을 1로 정규화)
고도여그	International Collaboration	해당 기관과 다른 국가의 기관 저자가 공동으로 발표한 논문의 비율
	Collaboration Impact	국제적인 기관 저자와의 협력으로 발표한 논문의 한 편당 피 인용된 횟수
연구 관심도     View per publication     Scopus상에서 기관의 논문이 다운로드 된 횟수를 논문 수로 나눈 논문 한 편당 다운로		Scopus상에서 기관의 논문이 다운로드 된 횟수를 논문 수로 나눈 논문 한 편당 다운로드 수



# Explore Overview 연구현황탐색 및 전략 개발



### Accessing SciVal at www.scival.com





소속 기관 네트워크 내에서 접속 후 Sign in
ScienceDirect, Scopus, Mendeley 의 계정이 있는 경우 동일 계정 사용
없는 경우 소속 기관 도메인 이메일 주소로 계정 생성

SciVal				<u>Explore</u> Compare → Reporting My SciVal Scopus ≉	(? <sup>66</sup> 🏛 혜기
Entity list Search entities - shortcut: /	Q + Define entity	🖻 Seoul National University		에 데시 여극시키 티네	a sources
anal University			• Explore : 선택안 er • Compare : 선택한	ntity 에 내안 연구연왕 담색 entity에 대한 연구성과지표 확인 및 비	<b>a</b>
Institution South Korea ① More details on this Institution					Create report 🖈
2019 to 2023 V All subject areas V ASJC					
Summary					
Bibliometrics					
Publication metrics					
Citation metrics					
Views metrics					
Journal quartiles					
Contribution					
Authors					
Scorpus Sources					
Research Fields					
Topics					
Research Areas					
Subject Areas					
SDGs					
Rankings					
Ranking positions					
QS World University Rankings					
THE World University					
Rankings					
Ranking Tracker					
Collaboration					
Collaboration metrics					
Geographical ecollaboration					
Sector collaboration					

Current collaborators	
Potential collaborators	$\checkmark$



#### Collaboration

Collaboration metrics

Geographical collaboration

Sector collaboration

Current collaborators

Potential collaborators

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SciVal	Explor	Compare 🗸	Reporting	My SciVal	Scopus 7	0 <sup>49</sup> 1	<u>ଲ</u> 혜기
Entity list Search entities - shortcut: / Q	+ Define entity 😰 Seoul National University					- 46 I	Data sources
nal University							
Institution South Korea ① More details on this Institution						Create repo	rt ★
2019 to 2023 🗸 ASJC							
Summary       Search Subject areas         Bibliometrics       All subject areas         Publication metrics       A gricultural and Biological Sciences (12)         Views metrics       > Agricultural and Biological Sciences (12)         Journal quartiles       > Arts and Humanities (14)         Biochemistry, Genetics and Molecular Biology (16)       > Business, Management and Accounting (11)         Authors       > Chemical Engineering (9)         Scopus Sources       > Chemistry (8)         Research Fields       > Computer Science (13)         Topics       > Decision Sciences (5)         Subject Areas       > Dentistry (7)	ASJC (All Science Journal Classfication) • Scopus의 등재 간행물 주제 분류 기준 • 4 개 대 주제 – 26개 중 주제 – 335 소 주제 • ASJC 분류 기준으로 학술지 주제 분류됨 / 하나의 학술지가 중복 주제로 분류될 수 있음						
Rankings Ranking positions							
QS World University Rankings							

- Rankings
- Ranking Tracker

#### Collaboration

Collaboration metrics

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Geographical collaboration

Sector collaboration

Current collaborators

Potential collaborators





Create report

🔆 Data sources

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### anal University

Institution South Korea ① More details on this Institution

2019 to 2023 🛛 🗸 All subject areas

#### Summary

#### Bibliometrics

- Publication metrics
- Citation metrics Views metrics
- . . . .
- Journal quartiles

#### Contribution

- Authors
- Scopus Sources

#### Research Fields

- Topics
- Research Areas
- Subject Areas
- SDGs

#### Rankings

- Ranking positions QS World University
- Rankings THE World University
- Rankings
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#### Collaboration

- Collaboration metrics
- Geographical collaboration
- Sector collaboration
- Current collaborators
- Potential collaborators

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### 원하는 주제분류 기준으로 변경 선택 가능

#### Select Subject Classification

This will be used to categorize Scopus Publications into scientific disciplines. Learn more

Change subject classifications in Settings

ASJC – All Science Journal Classification (Default)

View more details

Q

🖌 ASJC

- FORD Fields of Research and Development (FORD)
   Classification
   View more details
- QS Quacquarelli Symonds Classification View more details
- THE Times Higher Education Classification
   View more details





> Analyze in more detail

Potential collaborators

# Explore –<mark>동아대학교</mark> entity 탐색메뉴

#### Summary



# Explore -<mark>동아대학교</mark> entity 탐색메뉴

#### Summary

Bibliometrics	
Publication metrics	•
Citation metrics	•
Views metrics	•
Journal quartiles	•

Contribution
Authors
Scopus Sources

Research Fields
Topics
Research Areas
Subject Areas

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THE World University

Rankings

Ranking Tracker

#### Collaboration

Collaboration metrics

Geographical collaboration •

Sector collaboration

Current collaborators

Potential collaborators

### • 해당 기관의 출판 논문에 가장 많은 기여를 한 연구자와 학술저널 리스트 확인 Authors : 상위 500명까지 확인 및 리스트 반출 (논문 출판 당시 기준이므로 현재 소속 아닐 수 있음) • Scopus sources : 해당 기관 연구자가 가장 많이 논문 출판한 정기 간행물의 분석. 상위권 저널 분포 확인

Authors		<ol> <li>Metric guida</li> </ol>	ance + Add to Reporting E	Export Authors List 🗸
Top 500 authors, by Scholarly Output at Dong-A University over the period 201	9 to 2023. Note that some authors may no longer be affiliated with Dong	-A University.		
Add to panel >>> Benchmark in more detail 🛷 Tag 🗸 🕂 + Create gro	up			
관심 연구자 panel에	Scholarly Output 🗸	Most recent publication	Citations 🗸	h-index
추가하여 연구자	83	2023	1,438	35
이제 군국	72	2023	1,101	29
3. 🗌 Kim, Dae-hyun	57	2023	903	29
4. Park, Kyung-won	Scopus Sour	ces		
5. 🗌 Kee, Seong Hoon	Share of Scholarly Qui	tout that are in Scopus Source	s by CiteScore Percentile	
6. Oh, Sung-yong				
7. Leem, Sun-hee	View: • Absolute sh	are U Cumulative share	2	
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· · · · · ·	5%	-	🕞 View the lis	t of Scopus Sources
	t 10%			
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## Explore -<mark>동아대학교</mark> entity 탐색메뉴

#### Summarv

#### Bibliometrics

- Publication metrics
- Citation metrics
- Views metrics
- Journal quartiles

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#### Contribution

Authors

Scopus Sources



### Rankings Ranking positions **QS World University Rankings** THE World University Rankings Ranking Tracker

#### Collaboration

Collaboration metrics

Geographical collaboration

Sector collaboration Current collaborators

Potential collaborators

### 해당 기관의 주요 연구 분야의 확인 및 분석

- Topic : SciVal 의 10만 여개의 연구 토픽 및 1500여개의 토픽 클러스터 기반 해당 기관의 논문 출판 현황 Research Areas : 이용자가 설정한 Research area에 해당 기관의 논문의 출판 현황
- Subject Areas : ASJC 기반 출판 논문의 주제 분포
- SDGs : 16 개 SDG 항목에 대한 해당 기관의 출판 논문의 분포







Topics Research Areas

Subject Areas

SDGs

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THE World University

Rankings

Ranking Tracker

#### Collaboration

Collaboration metrics

Geographical collaboration •

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# Explore –<mark>동아대학교</mark> entity 탐색메뉴

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Publication metrics

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Authors

Scopus Sources

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Topics

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Ranking Tracker

#### Collaboration

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Geographical collaboration •

Sector collaboration

Current collaborators

Potential collaborators

- 대학의 경우 이용 가능
  - 해당 대학이 QS WUR, THE WUR, THE Impact Ranking에 순위가 있는 경우 표시
- 지역, 주제 랭킹 내용은 제공되지 않음
- Ranking Tracker : THE 랭킹 지표별 현재 현황을 확인하여 미래 랭킹을 예측

\*\* 세계대학랭킹 순위가 있는 학교만 보여짐 \*\* 지역, 주제별 랭킹 정보는 제공되지 않음

## Explore -<mark>동아대학교</mark> entity 탐색메뉴

#### Summarv

Bibliometrics	Bi	Ы	io	m	e	tri	cs
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Dub	lication	metrics
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Citation	metrics
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Journal quartiles

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Contribution

Authors

Scopus Sources

#### Research Fields

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**Research Areas** 

Subject Areas

SDGs

#### Rankings

Ranking positions

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THE World University

Rankings

Ranking Tracker

#### Collaboration

Collaboration metrics Geographical collaboration Sector collaboration Current collaborators Potential collaborators

### • 연구 협력의 범위에 따른 발행 출판 현황 확인 및 리스트 저장 (혹은 반출)

- Current /potential collaborators 는 기관, 연구자 (일부기능만), 국가 entity에서만 확인
   해당 기관의 현재 연구 협력 현황

  - 해당 기관에서 아직 협력하지 않고 있는 협력 기관 확인
- 이외 상세한 내용 확인을 위하여 협력 논문을 publication set으로 저장 후 확인 가능

#### Collaboration metrics

#### Geographical Collaboration ①

#### Metric guidance + Add to Reporting Export ∨

① Metric guidance + Add to Reporting Export ∨

International, national and institutional collaboration by Dong-A University in the selected year range

Metric	Publication share	Scholarly Output	Citations	Citations per Publication	Field-Weighted Cit	ation Impact
International collaboration	23.8%	882	20,938	23.7		1.82
Only national collaboration	52.6%	1,951	22,298	11.4		0.89
<ul> <li>Only institutional collaboration</li> </ul>	19.4%	719	6,011	8.4		0.66
Single authorship (no collaboration)	4.3%	159	603	3.8		0.40

#### Academic-Corporate Collaboration ①

Analyze r

Academic-corporate collaboration by Dong-A University in the selected year range.

	Metric	Publication share	Scholarly Output	Citations	Citations per Publication	Field-Weighted Citation Impact
	Academic-corporate collaboration	11.2%	415	11,393	27.5	2.17
	No academic-corporate collaboration	88.8%	3,296	38,457	11.7	0.90
nore sec	ors >					-

### Explore – Researcher entity 탐색메뉴

Summary



#### Contribution

Institutions

Scopus Sources

**Research Fields** 

Collaboration Collaboration metrics

Geographical collaboration • Sector collaboration

Current collaborators (Authors)

Current collaborators (Institutions)

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 $\downarrow$ 

Topics Subject Areas

#### Authorship metrics

#### Learn about Authorship types 🕫



	Authorship type	Scholarly Output	Authorsh sha	ip type are (%)	Field-Weighted Citation Impact	Outputs in Top 10% Citatio 🗸
	First author	2	$\wedge$	3.5	6.01	1
	Last author	4		6.9	28.99	1
	Corresponding author Data prior to June 2020 might be incomplete. Learn more	3	$\overline{}$	5.2	4.01	1
	Co-author	51		87.9	3.48	18
	Single author	1	\	1.7	0.00	0
L	Aggregation only visible when multiple types are selected					
	All publications	58	• • • • • •	100	5.27	20

#### ① Metric guidance + Add to Reporting Export ∨

### Explore – Researcher entity 탐색메뉴

Summary

#### Bibliometrics

Publication metrics • Citation metrics . Views metrics . Authorship metrics • Journal guartiles •

#### Contribution

Institutions

Scopus Sources

**Research Fields** 

#### Institutions

Topics

Subject Areas

#### Collaboration

Collaboration metrics

.

•

 $\checkmark$ 

- Geographical collaboration •
- Sector collaboration

Current collaborators

(Institutions)

Current collaborators (Authors)

### 연구자의 소속 기관별 논문 출판 현황 및 Impact 확인

Top 10 institutional affiliations of Neal, David E., by number of publications

Institution		Scholarly Output 🔸	Citations	Publication	Citation Impact	
1	1. GBR University	of Cambridge	40	3,459	86.5	3.93
1	2. GBR University	of Oxford	37	1,680	45.4	5.50
3	3. GBR Cambridge	University Hospitals NHS Foundation Trust	35	3,657	104.5	7.44
4	4. GBR Cancer Res	earch UK	33	3,239	98.2	4.39
!	5. GBR Oxford Uni	versity Hospitals NHS Foundation Trust	15	767	51.1	3.24
(	6. Unknown i	nstitution	2	137	68.5	7.64
1	7. GBR Newcastle	University	1	0	0.0	0.00

① Metric guidance + Add to Reporting Export ∨

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# Compare Overview 분석대상의 Metrics 확인 및 비교분석



. 0	SciVal							Explore	Compare	Reporting	My SciVa	Scopus	7 0	5	혜기
Ber 1996	2025 V All subject areas	SJC 💽 🖻	l						Benchmark All metrics Ranking metrics Intersect Collaboration m	atrix				券 Data sour	rces
<≡	Researchers and Groups	田 Table  ↗ Chart									<ol> <li>Metri</li> </ol>	ic guidance	+ Add to Rep	orting Export	t~
愈	Search Q Favorites Select all	Load Metric set	🛄 Sa	ave metric set	i≣ Manag	e multiple met	rics Add m	netric 🗸							
Õ	College of Agriculture and Life Sciences 3 items selected	One metric over time: Scholarly Out	put 🗸											Heatm	ap
[]	Biotechnology	Entity 🔨 🚿 Remove all	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Overall	_
$\odot$	Department of Agricultural Economics and Rural Development	College of Agriculture and Life Sciences	569	532	508	561	547	568	586	520	583	508	151	10,333	
	Department of Agriculture, Forestry and Bioresources	Pepartment of Agricultural Biotechnology	291	246	248	277	246	262	258	261	294	235	74	5,277	
Ξ	Department of Biosystems	Pepartment of Agricultural Economics and Rural	14	19	13	8	18	16	18	13	21	24	6	307	
	Department of Landscape Architecture and Rural System Engineering	Department of Agriculture, Forestry and Bioresources	206	211	175	204	186	199	208	161	170	161	44	3,504	
	☐ 🤗 Department of Vocational Education ★ and Workforce Development	ল্লি Seoul National University ৰ	9,679	9,895	10,347	10,721	11,315	11,725	12,268	11,832	11,595	12,408	3,599	214,406	Þ
	+ Create/Import V Options •••														



-0	SciVal						I	Explore	Compare 🗸	Reporting	My SciVa	l Scopus	× ()	<sup>15</sup>	혜기
Ben 1996 -	2025 All subject areas	🗸 ASJC 💽 🖻	1						Benchmark All metrics Ranking metrics Intersect Collaboration ma	trix				兴 Data so	ources
<≡ 宜	Researchers and Groups 130 ENTITIES Search Q	🕀 Table 📈 Chart	•	원하는 entity Table 혹은 Ch 처음 설정할 [	를 선택 : art 형태 대는 Tabl	후, metrics 선택 e 사용을 격	확인 및 바 추천	비교			① Metr	ic guidance	+ Add to Rep	orting Exp	ort 🗸
^ ⊡	Favorites Select all Favorites Select all Sciences 3 items selected	III     Load Metric set        One metric over time:     Scholarly Out	tput 🗸	Save metric set	i⊒ Manag	e multiple metri	ics Add m	etric 🗸						Heat	tmap
	Department of Agricultural Biotechnology	Entity 🛧 🍕 Remove all	201	5 2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	Overal	I
$\odot$	Economics and Rural Development	Sciences Sciences	56	9 532	508	561	547	568	586	520	583	508	151	10,333	
	Provide the second s	Repartment of Agricultural Biotechnology	29	1 246	248	277	246	262	258	261	294	235	74	5,277	* 
Ξ	Department of Biosystems	Construction of Agricultural Economics and Rural Development	1	4 19	13	8	18	16	18	13	21	24	6	307	,
	Pepartment of Landscape Architecture and Rural System Engineering	Department of Agriculture, Forestry and Bioresources	20	6 211	175	204	186	199	208	161	170	161	44	3,504	ŧ
	☐ ⅔ Department of Vocational Education ★ and Workforce Development		9,67	9 9,895	10,347	10,721	11,315	11,725	12,268	11,832	11,595	12,408	3,599	214,406	,
	+ Create/Import ~ Options •••														





a	SciVal	•	Home institution 아래 선택한 en 필터 가능 (예. 연구자들이	) 으로 필터 tity 의 출판 해당 대학 (	논문 중 "hon 이전에 발행협	ne institution"에 한 논문을 제외ㅎ	서 출판한 논 ŀ고 분석하고	문만으로 싶을 때)	Explore Compare	e∨ Reporting M	ly SciVal Scopus ≯	ଡ଼ି ଲ <b>ଭା</b>	2)
Ber 2019 -	2025 All subject areas		ASJC	• <u>@</u>	)							्रें Data sources	,
<≡	Researchers and Groups		⊞ Table 📈 C	hart							<ol> <li>Metric guidance +</li> </ol>	Add to Reporting Export	
俞	Search	Q											
0	Favorites Selec	ct all	Load Metric set	~	企	Export data aggregated fo	r active year range (CSV)						
6	College of Agriculture and Life Sciences 3 items selected	*	🏷 Reset to one metr	ic over time			<u>ب</u> ب ب	Export data aggregated for active year range (XLS2     Export data per publication year (CSV)     Export data per publication year (XLSX)					
[]	Department of Agricultural Biotechnology	*					Citations per					10% Journal	
Ο	Department of Agricultural Economics and Rural Development	* t	Entity 个	∰. Remove all	Scholarly Output 🗸	Citation Count (excl. self- citations) 🗸	Publication (excl. self- citations) 🗸	Field-Weighted Citation Impact ✓	International Collaboration (%) 🗸	Output in Top 1% Citation Percentiles (%) V	Output in Top 10% Citation Percentiles (%) V	Percentiles by CiteScore Percentile (%) V	
	Department of Agriculture, Forestr and Bioresources	ry ★	College of Agricult	ture and Life	3,463	46,473	14.0	1.13	29.4	1.2	14.1	43.0	
E	Department of Biosystems Engineering	*	Biotechnology	ricultural	1,630	18,362	11.8	0.99	27.3	0.8	12.1	40.5	
	Architecture and Rural System	*	Hopartment of Ag Economics and Ru	ricultural ural Development	116	1,088	10.0	0.91	32.1	0.0	11.9	25.2	
	Department of Vocational Education and Workforce Development	n ★	Pepartment of Ag Forestry and Biore	riculture, esources	1,129	16,227	15.1	1.16	28.5	1.7	15.9	43.8	
	A Neal, David E.	*	🗊 Seoul National Ur	niversity	74,742	1,080,379	15.3	1.34	29.6	1.8	13.5	38.6	
	Others Selec	ct all	4		1							•	



# 연구자 연구성과 분석



### 보고서 만들기 – 특정 연구자의 생애 연구 성과 분석



### 보고서 만들기 – 여러 명의 연구자의 성과 지표 비교

	본교 ㅇㅇㅇ공학부												
Ranking	Entity	Scholarly Outpu⁺	Citation Coun⁺	Citations per Publicatio	Field-Weighted Citation Impa	Output in Top 1% Citation Percentiles	Output in Top 10% Citation Percentiles	Publications in Top 1% Journal Percentiles(%	Publications in Top 10% Journal Percentiles(%)	h-index	h5-index		
1	김00	119	445	3.7	0.56	0	5.6	1.3	45.5	34	9		
2	최이이	35	169	4.8	0.44	0	2.6	0.0	59.4	19	6		
3	000	28	90	3.2	0.29	0	0.0	3.7	29.3	20	8		
4	신00	29	204	7.0	0.69	0	13.8	3.6	60.2	20	7		
5	0 00	28	111	4.0	0.52	PLE	10.5	0.0	41.2	9	4		
6	박이이	23	70	3.0	GA	0	0.0	0.0	23.8	7	4		
7	허이이	21	71	3.4	2.5	/ 0	3.9	5.1	37.3	10	4		
8	정00	19	161	8.5	0.97	0	21.1	0.0	36.0	18	4		
9	고00	16	37	2.3	0.28	0	0.0	0.0	24.8	13	5		
10	최이이	16	47	2.9	0.70	0	0.0	0.0	20.9	12	5		
11	0 00	16	137	8.6	0.94	0	11.4	5.5	84.7	21	7		
12	최00	15	27	1.8	0.32	0	6.1	6.2	24.6	4	3		
13	설이이	9	75	8.3	0.63	0	17.7	0.0	47.0	12	4		
14	0 00	6	84	14.0	1.25	0	36.0	10.1	97.0	7	7		
15	박00	7	14	2.0	0.52	0	0.0	0.0	0.0	15	2		
16	0 00	5	21	4.2	0.24	0	0.0	0.0	36.0	12	2		







### Scopus Author Profile 기반의 SciVal 연구자 분석





### SciVal 에서 연구자 검색 및 설정 방법

	Researchers and Groups Q ×	
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۲		ie
Ē	0	i A
डि	SciVal uses author profiles from Define a new Researcher	р.
	Define a new Group of Researchers Import Researchers w Synchronize Groups <sup>1</sup>	0 sł
	+ Create/Import ^	

Entity 패널 좌측 하단 "Define a new Researcher" 에서 연구자 검색 및 설정

### **Define Researcher**



### **Define Researcher**

Defir	ne a	new Re	searcher							×
1. Sear	rch	2. Select	3. Validate publications (optiona	) 4. S	ave Researcher					
Sele	ct aut	hor name	e variant(s) that refer to t	ne Rese	archer 1 result					
	Autho	r	Pub	ications 🗸	Subject Area			Affiliation	Country/Region	
	C - C C la N L C C C Show	D i i	ions	344	Engineering, M Biology, Immur and Pharmaceu Engineering, M Sciences, Physic Nursing	edicine, Biochemistry, Genetics and nology and Microbiology, Pharmaco tics, Chemistry, Computer Science, aterials Science, Agricultural and Bit is and Astronomy, Neuroscience, Mi	Molecular ogy, Toxicology Chemical ological ultidisciplinary,	Catholic Research Institute of Medical Science	South Korea	
< Previ	ous step	0	히 근	당 연구 스트 김	<sup>그</sup> 자 프로피 넘토 및 수정	ት일에 포함된 논문 성 요청 (선택사항)	•	Validate publications (optional) >	Directly go to Save Research	er >

### 연구성과 확인 및 비교하기 – Compare





# 동향분석



## 동향분석이 가능한 entity 종류

키워드 분석을 포함한 동향 분석은 아래 3개의 entity 에서 분석 가능



### 토픽과 토픽 클러스터



### Trends Module – Topic and Topic Cluster 관심 연구 분야 및 국제적 전문가들에 대한 통찰력 확보



### 관심 국가, 기관, 연구자의 주요 연구 토픽 확인하기

Public

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Topic

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SDGs

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### Example Institutions and Groups $\equiv$ 0 X 22 SAVED ENTITIES 俞 Favorites Dong-A University 8 Others വ ⋒ Allen Institute for Brain Science ⑦ Chinese Academy of Sciences **Chonnam National University** $\odot$ ⑦ Daegu Gyeongbuk Institute of Science and Technology ╬ nha University f Korea Advanced Institute of Science and F Technology ℜ Korea Brain Research Institute f Korea Institute of Science and Technology f Korea University Max Planck Institute for Brain Research + Create group Options •••

ation metrics	•	-									
on metrics	•		Topics and Topic Clusters 🛛								
metrics	•										
al quartiles			Between 2019 to 2023, researchers at Dong-A University have contributed to:								
			<ul> <li>810 Topic Clusters</li> </ul>								
ibution		L.	2,225 Topics								
rs		h	I Table 🛞 Wheel 👋 Scatter				<ol> <li>Metric gui</li> </ol>	dance $+$ Add to Reporting Export $\checkmark$			
s Sources		2									
			All Topic Clusters	0							
TCH T ICIUS		lle.									
1			🐻 Add to panel 🖁 Create Research Area 📈 Prominence percentile over time	Tag ~							
rch Areas		14				At this Institution		Worldwide			
rch Areas :t Areas		ľ		s	cholady	At this Institution	Field Weighted	Worldwide			
rch Areas :t Areas		ľ	Topic Cluster	5	icholarly Output 🗸	At this Institution Publication Share	Field-Weighted Citation Impact	Worldwide Prominence percentile			
rch Areas ct Areas			Topic Cluster     Topic Stroke, Thrombectomy, Computed Tomography	5	icholarly Output ↓ 46	At this Institution Publication Share 0.20% 💌	Field-Weighted Citation Impact 1.09	Worldwide Prominence percentile 86.266			
rch Areas et Areas eoration			Topic Cluster  Stocker, Thrombectomy, Computed Tomography TC.113	5	icholarly Output ↓ 46	At this Institution Publication Share 0.2096 💌	Field-Weighted Citation Impact 1.09	Worldwide Prominence percentile 86.266			
rch Areas 21 Areas Horation Horation metrics			Topic Cluster  Isobernic Stroke; Thrombectomy; Computed Tomography TC.113  Manual: Renausa Impring Tury Compiling Europian	S	icholarly Output ↓ 46	At this Institution Publication Share 0.20% ¥	Field-Weighted Citation Impact 1.09	Worldwide Prominence percentile 86.260			
rch Areas et Areas <b>Foration</b> Foration metrics graphical collaborati	on e		Topic Cluster  Stroker, Thrombectomy, Computed Tomography TC.113  Magnetic Resonance Imaging; Tau; Cognitive Function TC.137	S	icholarly Output ↓ 46 43	At this Institution Publication Share 0.20% * 0.18% *	Field-Weighted Citation Impact 1.09 1.35	Worldwide Prominence percentile 86.266 92.740			
rch Areas et Areas moration moration metrics graphical collaborati or collaboration	on e		Topic Cluster  Stokenic Stroke; Thrombectomy; Computed Tomography TC.113  Magnetic Resonance Imaging; Tau; Cognitive Function TC.137  Topic Segmentation: Deen Neural Network: Object Detection	5	icholarly Output ↓ 46 43	At this Institution Publication Share 0.20% # 0.18% #	Field-Weighted Citation Impact 1.09 1.35	Worldwide Prominence percentile 86.266 92.740			
rch Areas et Areas oration oration metrics praphical collaborati ir collaboration ht collaborators	on e		Topic Cluster  Stroke, Thrombectomy; Computed Tomography TC.113  Magnetic Resonance Imaging; Tau; Cognitive Function TC.137  Image Segmentation; Deep Neural Network; Object Detection TC.0	5	icholarly Output ↓ 46 43 43	At this Institution Publication Share 0.20% ¥ 0.18% ¥ 0.02% ▲	Field-Weighted Citation Impact 1.09 1.35 1.81	Worldwide Prominence percentile 86.266 92.740			

1. 분석단위(entity)의 Research Fields < Topics 메뉴를 통해 분석 대상의 주요 연구 토픽 확인

2. 관심 Topic 옆 네모칸 체크 후, "Add to panel" 에 추가 혹은 여러 개 Topic을 선택하여 "Create Research Area" 생성

### Topic and Clusters 분석단위에서 관심 연구 토픽 직접 검색하기

Topics, Clusters and Groups **0 SAVED ENTITIES** 侴 2 ſ  $\odot$ ╏ Ξ A Topic is a dynamic collection of documents with a common focused <u>î</u>sî intellectual interest. A publication can only belong to one Topic. Learn more about Topics

You haven't added any Topics yet - run a search and add one. Tip: Topic Clusters (TC) appear at the top of a search and are broader than Topics.

+ Create group



🛓 Entity list 🛛 S	earch entities		🔍 🕂 Define entity 🛛 😰 Inha University	📵 Data sources
Climate Chan Topic 7.70859 + Al 2021 to 2023 V	ege; Food S bout this Topic	ecurity; Himalayas ) in Topic Cluster Climate Charge; los Sheet; Greenla	nd	E Caulo report
Summary At Home Institution		Summary (overall)		+ Add Summary to Reporting Export 🗸
		Summary metrics		+ Add to Reporting
Bibliometrics	~	26	0.72	7
Contribution	~	Scholarly Output ()	Field-Weighted Citation Impact	International Collaboration (3)
Research Fields	^			
Subject Areas		57.7% All Open Access	Yearly breakdown	
Teo contributors		<b>Wew list of publications</b>		
Related Topics		107	4.1	51.449
Collaboration	~	Citation Count	Citations per Publication ()	Topic Prominence
Impact	~			potence O
Funding	Ý			Calculation breakdown
1.	Topio 클릭	cs, Clusters an	d Groups 엔티티 선	넌택 후 우측상단 돋보기

- 2. 관심 키워드로 토픽 검색 후 "+" 클릭하여 엔티티 추가
- 3. 추가된 토픽 클릭하여 토픽 분석



## Research Area 분석단위에서 관심 분야 직접 설정하기

		_		
	Research Areas Q X	D	efine a new Research Area	⑦ View quick guide X
		1	Create definition     2     2. Refine     3. Save definition	
血		Use	e search terms Use entities Use Topics	
2		De	fine a new Research Area based on publications that match	
۵		En	ter query string:	Create a search query making use of double quotes, parentheses, the minus sign, OR and AND     Ablank (space) is treated the same as using AND. So searching with 'solar flare' is similar to 'solar AND
		Nee Use	ad more guidance? the search query fields	ttare Use double quotes to have multiple words treated as being one term. E.g. "Solar flare" For example: Solar cells "Conversion efficiency" Mental health Autism -children (speech OR voice) AND recognition
U				Learn more about how your search query is processed $\varkappa$
	A Research Area is a dynamic field of			
1\$[	interest, as broad or narrow as you		• 아래 3가지 방법 중 택1하여 관심 연구 -	분야 설정하기
	choose to define it.			
	Learn more about Research Areas a You haven't added any Research Areas yet - run a search and add one or define your own. Tip: SciVal contains predefined Research Areas, e.g. Scopus ASJCs, SDGs, COVID-19 etc.	1	<ol> <li>관심 연구 키워드로 검색하여 연구 분</li> <li>수록 학술지 (Scopus source), 주제분이 (country) 로 연구 논문 선택</li> <li>관심 Topic 을 선택 혹은 조합하여 연구</li> </ol>	·야 설정(예. Solar cells "Conversion efficiency") ᅣ (subject), 출판기관 (institution), 출판국가 구 분야 설정
(	+ Create new		* 10,000 편 이하는 즉각 생성 * 10,000 편 이상은 약 6시간 소요 * 최대 200,000편으로 제한	

# SciVal – 연구동향분석 내용





# Appendix 1

My SciVal SciVal Resources Page





### SciVal Resources Page 안내

### https://view.highspot.com/viewer/16ebfc94ca1f804d82ecd0a8b48e541c





## Appendix 2 Metrics



### h-Index 연구자의 영향력 지수

- 연구자의 연구성과를 평가하기 위한 지표로 UCSD의 물리학자 Jorge E. Hirsch에 의해 개발
- 연구자가 발표한 논문의 수나 피 인용수 등 개별 지표에서 성과를 양이나 질로 단순히 평가하는 기존의 지표와 달리, **질과 양적인 측면** 모두 고려
- 논문을 인용빈도가 높은 순부터 나열 하였을 때, 논문의 인용빈도가 논문의 순위보다 크거나 같은 마지막 논문의 순위가 h-index
- 현재는 연구자 뿐만 아니라, 저널, 기관, 국가의 연구성과 측정에도 활용되고 있음
- H5 index

ELSEVIER

	No	Citations
	1	134
	2	69
	3	43
	4	42
	5	39
	6	31
	7	29
	8	28
	9	28
	10	20
	11	18
_	12	15
	13	13
	14	10



### Field Weighted Citation Impact 논문의 영향력 지수

- 같은 출판연도, 주제분야, 논문 형태에 따라 인용을 측정하여 정규화 한 인용지수 (상대적인 피인용 지수)
- 특정 논문들이 받은 실제 인용 수에 대한 비율로, 전체 인용은 주제 분야 평균에 기반에서 산출
- 정규화된 지수로 다양한 주제분야를 비교하는데 있어 활용될 수 있음
- FWCI의 전세계 평균은 1이며, 1보다 크면 평균이상, 1 이하이면 평균 이하, 예) FWCI가 1.34이면 전세계 평균대비 34% 더 인용되었다고 해석





\*Source: Elsevier Research Metrics Guidebook



# Top Percentiles (상위 n% 논문 비율) 논문의 영향력

### Outputs in Top Citation Percentiles

- 인용 건수 기준 전세계 상위 n%에 해당되는 논문 편수의 비율
- 각 연도에 출판된 전세계 모든 논문을 피인용 수를 기준으로 정렬 했을 때, 각 논문이 상위 몇 %에 위치하는지를 기준으로 산출
- 상위 1%, 상위 5%, 상위 10%, 상위 25% 산출 가능하며 비율 뿐
   아니라 해당 논문 수도 확인 가능



### Publications in Top Journal Percentiles

- CiteScore 등 저널의 영향력 지수를 기준으로, 상위 n% 저널에 발표된 논문 편수의 비율
- 저널의 영향력 지수는 CiteScore, SNIP, SJR 적용 가능
- 상위 1%, 상위 5%, 상위 10%, 상위 25% 산출 가능하며 비율 뿐
   아니라 해당 논문 수도 확인 가능



### CiteScore 학술지 영향력 지수

- Scopus에 등재된 정기 간행물을 통해 발행된 연구문헌이 얼마나 인용되는지를 근거로 계산된 학술지 인용지수
- 저널에서 지난 4년간 발행된 논문의 인용수를 4년간 발행된 논문수로 나누어 계산
- 논문(Publications)은 article, reviews, conference papers, book chapters, data paper 대상
- Article in Press 는 지수 산출 시 제외됨



Numerator = Citations in 2020-2023 to typically peer-reviewed publications in the source published in 2020-2023 Denominator = typically peer-reviewed publications in the source published in 2020-2023



## International Collaboration 국제 공동 연구

- 해당 기관과 다른 국가의 기관 저자가 공동으로 발표한 논문의 비율
- 일반적으로 연구 협력하는 범위가 커질수록 FWCI등 연구 영향력이 커짐(국제공동연구 > 국내공동연구 > 기관내 공동연구 > 단독연구)

### Geographical Collaboration o

① Metric guidance + Add to Reporting Export 🗸

International, national and institutional collaboration by the University of Jucuit in the selected year range.

Metric		Scholarly Output	Citations	Citations per Publication	Field-Weighted Citation Impact
International collaboration	39.9%	1,936	40,859	21.1	1.98
<ul> <li>Only national collaboration</li> </ul>	37.9%	1,839	17,987	9.8	0.85
Only institutional collaboration	17.8%	864	7,637	8.8	0.82
Single authorship (no collaboration)	4.3%	210	498	2.4	0.39

### Academic-Corporate Collaboration o

⑥ Metric guidance + Add to Reporting Export ∨

Academic-corporate collaboration by the University I in the selected year range.





# Thank you

